CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Kodigehalli Sub Division,
BBMP.

17th April 2015

Dear Sir,

Sub: Testing of Semi Dense Bituminous Concrete.

As requested, the required tests were carried out for the Semi Dense Bituminous Concrete samples supplied by you, for the work of **'Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.'**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON SEMI DENSE BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	17/04/2015
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-15 for SDBC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
13.2	100	**100**	**Satisfies the requirements**
9.5	90-100	**97.4**	
4.75	35-51	**41.3**	
2.36	24-39	**32.7**	
1.18	15-30	**22.6**	
0.3	9-19	**17.5**	
0.075	3-8	**6.7**	

Note:

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Lab Incharge
Civil Tech Labs

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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON THE DETERMINATION OF BITUMEN CONTENT ON SEMI DENSE BITUMINOUS CONCRETE MIX-GRADE 2

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	17/04/2015

A)

Sl. No.	Test	Test Method	Technical Reference
1	Extraction of mineral aggregate	**Test Method A (Centrifuge Method)**	**ASTM: D2172/ D2172M-11**
2	Determination of amount of mineral matter/fines in the extract	**Ashing Method**	

B)

Specification: As Per MORTH (4th Revision) Table 500-15, Bitumen Content for SDBC Grade-2 is MIN 5%		
Sl. No.	**Description**	**Values**
1	Weight of bituminous mixture before extraction test, **W_1 g**	**2000**
2	Weight of mineral aggregate obtained from centrifuge extractor, **W_2 g**	**1885.23**
3	Weight of mineral matter in the total volume of extract (by ashing), **W_3 g**	**12.6**
4	Total weight of aggregate in the bituminous mixture, **W_4 g = (W_2 +W_3) g**	**1897.83**
5	Total weight of Bitumen extracted from the mixture, **W_5 g = (W_1-W_4) g**	**102.17**
6	Bitumen content in %, **(W_5/W_1) %**	**5.11**

Remarks	**Satisfies the requirements.**

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T-2654

To,

Assistant Executive Engineer
Kodigehalli Sub Division,
BBMP.

27th March 2015

Dear Sir,

Sub: Testing of Materials.

As requested, the required tests were carried out for the materials the samples supplied by you, for the work of **'Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.'**

Please find the enclosed Test Reports of the above.

AE-7

Thanking You,
For Civil Tech Labs

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	27/03/2015

Tests	**Test Method As Per IS & Apparatus**		**Results**		**Requirements As Per IS 8112:1989**	**Remarks**
	IS Code	**Method**	**Value**	**Unit**		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	52	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	485	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	5	mm	Not More Than 10 mm	Satisfies Requirement

Note:

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TEST REPORT

TEST ON FINE AGGREGATES Ref:IS:383/2386

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	27/03/2015
Specific Gravity	**2.57**

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970				Grading Zone
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV	
River Sand	10	**100**	100	100	100	100	II
	4.75	**97.4**	90-100	90-100	90-100	95-100	
	2.36	**83.6**	60-95	75-100	85-100	95-100	
	1.18	**74.2**	30-70	55-90	75-100	90-100	
	0.6	**45.7**	15-34	35-59	60-79	80-100	
	0.3	**23.8**	5-20	8-30	12-40	15-50	
	0.15	**7.6**	0-10	0-10	0-10	0-15	

Note:

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Lab Incharge
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TEST REPORT

TEST ON COARSE AGGREGATES 40mm ↓ Graded Ref:IS:383/2386

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	27/03/2015
Specific Gravity	**2.67**
Water Absorption in %	**0.28**

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)	Remarks
80	**100**	100	**Satisfies the requirement**
40	**98.5**	95-100	
20	**53.2**	30-70	
10	**23.4**	10-35	
4.75	**3.8**	0-5	

AE-1

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON REINFORCEMENT STEEL BARS 12mm

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Test	27/03/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	12	12	Satisfactory
2	Wt/m Length (Kg/m)	0.889	0.888	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.2	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	419	415	Satisfactory
6	U T S (N/Sq.mm)	524	485	Satisfactory

AEE

Note:

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Lab Incharge
Civil Tech Labs

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Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Kodigehalli Sub Division,
BBMP.

16th April 2015

Dear Sir,

Sub: Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Testing of cubes – Reg.

As requested the 7th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Report of the above.

Thanking you,

For Civil Tech Labs,

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of Agency	Sri. Samba Shiva
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm^2
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

AE-7

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm^2)	Avg Compressive Strength (N/mm^2)
1	CC-Work (Drain)	09/04/2015	07/05/2015	28	8.17	475	**21.11**	**21.41**
2					8.18	480	**21.33**	
3					8.20	490	**21.78**	

Note:
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Lab Incharge
Civil Tech Labs

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T-2654

To,

Assistant Executive Engineer,
Kodigehalli Sub Division,
BBMP.

31st March2015

Dear Sir,

Sub: Testing of Wet Mix Macadam.

As requested, tests on physical properties were carried out for the Wet Mix Macadam supplied by you, for the work of **'Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.'**

AE-7

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON AGGREGATES ('AIV' & Combined Flakiness & Elongation Index)

Wet Mix Macadam

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Agency of the Name	Sri. Samba Shiva
Date of Testing	27/03/2015
Reference	**MORTH Table 400-10**

Sample No	Aggregate Impact Value 'AIV' in %	Average AIV in %	Remarks
1	22.3	22.9	Satisfactory (As per MORTH for WMM, Maximum allowed AIV is 30 %)
2	23.5		

AE-7

Test	Result in %	Combined Flakiness & Elongation Index 'C-F&E' in %	Remarks
Flakiness Index	13.2	27.2	Satisfactory (As per MORTH for WMM, Maximum allowed 'C-F&E' is 30 %)
Elongation Index	14.0		

Note:

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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	27/03/2015
Technical Reference	MORTH Table 400-11

IS Sieve Designation (mm)	% By Weight Passing IS Sieve	Actual % By Weight Passing IS Sieve	Remarks
53	100	**100**	**Satisfy the Requirements**
45	95-100	**98.4**	
22.4	60-80	**73.6**	
11.2	40-60	**52.6**	
4.75	25-40	**32.5**	
2.36	15-30	**24.5**	
0.6	8-22	**18.6**	
0.075	0-8	**7.5**	

AE-7

Note:

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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	28/03/2015
Technical Reference	MORTH Table 400-11

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve**	**Actual % By Weight Passing IS Sieve**	**Remarks**
53	100	**100**	**Satisfy the Requirements**
45	95-100	**97.4**	
22.4	60-80	**74.2**	
11.2	40-60	**53.6**	
4.75	25-40	**32.5**	
2.36	15-30	**25.6**	
0.6	8-22	**17.4**	
0.075	0-8	**6.9**	

AE-1

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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	28/03/2015
Technical Reference	MORTH Table 400-11

	Sample-2		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve**	**Actual % By Weight Passing IS Sieve**	**Remarks**
53	100	**100**	**Satisfy the Requirements**
45	95-100	**97.6**	
22.4	60-80	**75.5**	
11.2	40-60	**54.2**	
4.75	25-40	**33.6**	
2.36	15-30	**26.5**	
0.6	8-22	**18.4**	
0.075	0-8	**7.2**	

AE-1

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Lab Incharge
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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	30/03/2015
Technical Reference	MORTH Table 400-11

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve**	**Actual % By Weight Passing IS Sieve**	**Remarks**
53	100	**100**	**Satisfy the Requirements**
45	95-100	**98.5**	
22.4	60-80	**74.3**	
11.2	40-60	**55.6**	
4.75	25-40	**34.5**	
2.36	15-30	**25.8**	
0.6	8-22	**17.7**	
0.075	0-8	**6.9**	

Note:

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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	30/03/2015
Technical Reference	MORTH Table 400-11

	Sample-2		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve**	**Actual % By Weight Passing IS Sieve**	**Remarks**
53	100	**100**	**Satisfy the Requirements**
45	95-100	**97.3**	
22.4	60-80	**73.4**	
11.2	40-60	**54.6**	
4.75	25-40	**35.2**	
2.36	15-30	**24.6**	
0.6	8-22	**18.7**	
0.075	0-8	**6.6**	

A&T

Note:

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Lab Incharge
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TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	31/03/2015
Technical Reference	MORTH Table 400-11

IS Sieve Designation (mm)	% By Weight Passing IS Sieve	Actual % By Weight Passing IS Sieve	Remarks
53	100	**100**	**Satisfy the Requirements**
45	95-100	**98.4**	
22.4	60-80	**74.5**	
11.2	40-60	**55.6**	
4.75	25-40	**34.5**	
2.36	15-30	**23.8**	
0.6	8-22	**17.7**	
0.075	0-8	**7.1**	

AE-1

Note:

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Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

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Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer,
Kodigehalli Sub Division,
BBMP.

07th May 2015

Dear Sir,

Sub: Improvements to roads and drains in Amruthanagara "B" Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Testing of cubes – Reg.

AE-7

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Report of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer,
Kodigehalli Sub Division,
BBMP.

17th April 2015

Dear Sir,

Sub: Testing of Semi Dense Bituminous Concrete.

AE-1

As requested, tests on physical properties were carried out for the Semi Dense Bituminous Concrete supplied by you, for the work of **'Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.'**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

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5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON AGGREGATES ('AIV' & Combined Flakiness & Elongation Index)

Semi Dense Bitumenous Concrete

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.
Name of Agency	Sri. Samba Shiva
Date of Testing	17/04/2015
Reference	**MORTH Table 500-14**

Sl. No	Aggregate Impact Value 'AIV' in %	Average AIV in %	Remarks
1	18.4	19.5	Satisfactory (As per MORTH for SDBC, Maximum allowed AIV is 27 %)
2	20.6		

Test	Result in %	Combined Flekiness & Elongation Index 'C-F&E' in %	Remarks
Flakiness Index	12.3	25.8	Satisfactory (As per MORTH for SDBC, Maximum allowed 'C-F&E' is 30 %)
Elongation Index	13.5		

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Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

WATER ABSORPTION TEST OF ROAD AGGREGATES

Semi Dense Bitumenous Concrete (SDBC)

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.
Name of Agency	Sri. Samba Shiva
Date of Testing	17/04/2015

Method of Test	Sample No.	Water Absorption in %	Average Water Absorption in %	As per MORTH Table 500-14	Remarks
IS : 2386 (Part 3)	1	0.85	0.88	**2 % Maximum**	Satisfactory
	2	0.88			
	3	0.92			

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TEST REPORT

STRIPPING TEST OF ROAD AGGREGATES

Semi Dense Bitumenous Concrete

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.
Name of Agency	Sri. Samba Shiva
Date of Testing	17/04/2015

Method of Test	Observation No.	Uncovered Area/Stripping in %	Average Stripping Value in %	As Per Morth Table 500-14	Remarks
IS 6241-1971 (Reafirmed 2003)	1	3.9	3.8	**5 % Maximum**	Satisfactory
	2	3.8			
	3	3.7			

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Civil Tech Labs

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TEST REPORT

TEST ON THE DETERMINATION OF BITUMEN CONTENT ON SEMI DENSE BITUMINOUS CONCRETE MIX-GRADE 2

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	17/04/2015

A)

Sl. No.	Test	Test Method	Technical Reference
1	Extraction of mineral aggregate	**Test Method A (Centrifuge Method)**	**ASTM: D2172/ D2172M-11**
2	Determination of amount of mineral matter/fines in the extract	**Ashing Method**	

B) **Specification: As Per MORTH (4th Revision) Table 500-15, Bitumen Content for SDBC Grade-2 is MIN 5%**

Sl. No.	Description	Values
1	Weight of bituminous mixture before extraction test, **W_1 g**	**2000**
2	Weight of mineral aggregate obtained from centrifuge extractor, **W_2 g**	**1883.6**
3	Weight of mineral matter in the total volume of extract (by ashing), **W_3 g**	**12.4**
4	Total weight of aggregate in the bituminous mixture, **W_4 g = (W_2 +W_3) g**	**1896**
5	Total weight of Bitumen extracted from the mixture, **W_5 g = (W_1-W_4) g**	**104**
6	Bitumen content in %, **(W_5/W_1) %**	**5.20**

Remarks	**Satisfies the requirements.**

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Civil Tech Labs

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CIVIL TECH LABS

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TEST REPORT

GRADATION TEST ON SEMI DENSE BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	17/04/2015
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-15 for SDBC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
13.2	100	**100**	**Satisfies the requirements**
9.5	90-100	**97.4**	
4.75	35-51	**44.6**	
2.36	24-39	**27.3**	
1.18	15-30	**24.2**	
0.3	9-19	**17.7**	
0.075	3-8	**6.8**	

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TEST REPORT

GRADATION TEST ON SEMI DENSE BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP.
Name of Work	Improvements to roads and drains in Amruthanagara" B" sector main roads in ward no. 07, Byatarayanapura. Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	17/04/2015
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-2		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-15 for SDBC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
13.2	100	**100**	**Satisfies the requirements**
9.5	90-100	**98.4**	
4.75	35-51	**43.5**	
2.36	24-39	**26.5**	
1.18	15-30	**23.9**	
0.3	9-19	**17.4**	
0.075	3-8	**6.6**	

AE-1

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of Agency	Sri. Samba Shiva
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work (Drain)	09/04/2015	16/04/2015	7	8.16	336	**14.93**	**15.14**
2					8.17	340	**15.11**	
3					8.18	346	**15.38**	

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Civil Tech Labs

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TEST REPORT

TEST ON WMM MIX

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	27/03/2015
Reference	MORTH Table 400-11

IS Sieve Designation (mm)	% By Weight Passing IS Sieve	Actual % By Weight Passing IS Sieve	Remarks
53	100	100	**Satisfies Requirements**
45	95-100	97.4	
22.4	60-80	72.6	
11.2	40-60	53.4	
4.75	25-40	35.6	
2.36	15-30	24.5	
0.6	8-22	15.6	
0.075	0-8	6.8	

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TEST REPORT

GRADATION TEST ON SEMI DENSE BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthanagara 'B' Sector main roads in ward no. 07, Byatarayanapura, Kodigehalli Sub Division.
Name of the Agency	Sri. Samba Shiva
Date of Testing	17/04/2015
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-2		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-15 for SDBC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
13.2	100	**100**	**Satisfies the requirements**
9.5	90-100	**98.2**	
4.75	35-51	**42.3**	
2.36	24-39	**31.6**	
1.18	15-30	**23.5**	
0.3	9-19	**16.4**	
0.075	3-8	**7.2**	

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